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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,560	07/20/2005	Michael Ulmer	10191/4108	5940
26646	7590	11/08/2005	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			BENSON, WALTER	
			ART UNIT	PAPER NUMBER
			2858	

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b> 10/520,560	<b>Applicant(s)</b> ULMER ET AL.	
	<b>Examiner</b> Walter Benson	<b>Art Unit</b> 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4 and 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/05/05</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. In the Preliminary Amendment received on 1/05/05, claims 1-3 have been cancelled, and claims 4 and 5 have been added.
2. Claims 4 and 5 are now pending.

### ***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 07/17/2002. It is noted, however, that applicant has not filed a certified copy of the 102 32 359.3 (DE) application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ulmer (US Patent No. 6,696,840 B2 and Ulmer hereinafter) in view of Evan et al (US Patent No. 5,410,253 and Evans hereinafter).

6. As to claim 4, Ulmer discloses a device for triggering ignition circuits substantially as claimed, comprising:

a positive output stage assigned to each one of the two ignition circuits (col. 1, lines 64-67);

a negative output stage assigned to each one of the two ignition circuits (col. 1, lines 64-67);

a drive circuit assigned to each one of the positive output stages and negative output stages (col. 2, lines 64-67);

a diagnostic unit assigned to each one of the positive output stages and negative output stages (col. 2, lines 9-14);

where a first pair of positive output stage and a negative output stage is provided on a common substrate, and wherein a second pair of positive output stage and a negative output stage is provided on a common substrate [col. 1, lines 6-9 and 23-24].

Ulmer did not expressly disclose:

where, for each ignition circuit, a positive output stage and a negative output stage from different pairs are provided.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Ulmer, as evidenced by Evans

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Evans discloses a method of indicating combustion in an internal combustion engine having:

where, for each ignition circuit, a positive output stage and a negative output stage from different pairs are provided (Fig. 1; col. 3, lines 55-60).

Given the teaching of Evans, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying Ulmer by employing the well known or conventional features of ignition drive devices, such as disclosed by Evans, in order to efficiently provide an output signal from the spark drive module for triggering the ignition circuit of Ulmer.

7. As to claim 5, Ulmer discloses Ulmer discloses a device for triggering ignition circuits, comprising:

where for each pair of the positive output stage and the negative output stage, a common power supply is connected to the positive output stage and the negative output stage (col. 1, lines 60-63).

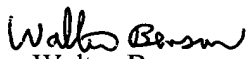
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter Benson whose telephone number is (571) 272-2227. The examiner can normally be reached on Mon to Fri 6:30 AM to 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Walter Benson  
Patent Examiner

November 6, 2005